

AMENDMENT TO THE CLAIMS:

1. (Currently Amended) A molded electrode, comprising:

an electrode material comprising a polymer active material, a conductivity-enhancing agent and a plasticizer; and

a current collector sheet;

wherein the electrode material and the current collector sheet are being molded into one piece, and the electrode material comprises a thickness of 300 μm to 9 mm and is formed on at least one side of the current collector sheet, and

wherein said plasticizer comprises a material for facilitating molding of the molded electrode and enhancing the shape retainability after molding and is present when the molded electrode is in operation.

2. (Previously Presented) A molded electrode comprising:

an electrode material comprising a polymer active material, a conductivity-enhancing agent and a plasticizer; and

a plurality of current collector sheets,

the electrode material and the current collector sheets being formed into one piece, and the current collector sheets being spaced from each other in the thickness direction of the electrode.

3. (Previously Presented) A molded electrode comprising:

an electrode material comprising a polymer active material, a conductivity-enhancing

agent and a plasticizer; and

at least one current collector sheet,

the electrode material and the current collector sheet being formed into one piece, and the ratio of the volume of the electrode material and the volume of the current collector sheet being within a range of 30:1 to 100:1, provided the volume of the terminal portion of the current collector sheet is excluded from the volume of the current collector sheet.

4.(Currently amended) A molded electrode according to Claim 3, wherein the current collector sheet comprises is two or more current collector sheets.

5. (Original) A molded electrode according to Claim 1, wherein the amount of the plasticizer is 2 to 15% by weight of the total of the electrode material.

6. (Original) A molded electrode according to Claim 2, wherein the amount of the plasticizer is 2 to 15% by weight of the total of the electrode material.

7. (Original) A molded electrode according to Claim 3, wherein the amount of the plasticizer is 2 to 15% by weight of the total of the electrode material.

8. (Currently Amended) A molded electrode according to Claim 1, wherein the electrode material has unevenness at the surface, said unevenly molded surface comprises a shape-retainable surface.

9. (Currently Amended) A molded electrode according to Claim 2, wherein the electrode material comprises an uneven surface ~~has unevenness at the surface~~.

10. (Currently Amended) A molded electrode according to Claim 3, wherein the electrode material comprises an uneven surface ~~has unevenness at the surface~~.

11-16 (Canceled)

17. (Currently Amended) A ~~The~~ secondary battery comprising the molded electrode according to claim 1 ~~2~~, wherein said molded electrode comprises at least one of a positive electrode and a negative electrode.

18. (Currently amended) A secondary battery comprising ~~using~~ a molded electrode as set forth in claim 2, as at least one ~~either~~ of the positive electrode and the negative electrode.

19. (Currently amended) A secondary battery comprising ~~using~~ a molded electrode set forth in claim 3, as at least either of the positive electrode and the negative electrode.

20. (Original) The molded electrode according to claim 1, wherein a predetermined ratio exists between a volume of said electrode material to a volume of said current collector sheet.

21. (Currently Amended) The molded electrode according to claim 1, wherein said electrode material is hot pressed with said current collector sheet to form a heat bond between said

electrode material and said current collector sheet.

22. (Original) The molded electrode according to claim 1, wherein said electrode material includes a porosity of 20-30% in volume.

23. (Currently Amended) The molded electrode according to claim 1, wherein said current collector sheet comprises a thickness in a range from greater than 26 μ m to of no more than about 100 μ m.

24. (Previously Presented) The molded electrode according to claim 1, wherein said current collector comprises at least one of a mesh structure and a metal foil.

25. (Previously Presented) The molded electrode according to claim 2, wherein a distance between adjacent ones of said current collector sheets is unequal.

26. (Currently Amended) The molded electrode according to claim 1, wherein said surface of said electrode material is shaped to increase ~~wherein said electrode material comprises an uneven surface which increases~~ a surface area of said electrode material with substantially rectangular grooves.

27. (Currently Amended) The molded electrode according to claim 1, wherein said polymer active material comprises at least one of an aniline, an aniline derivative, a pyrrole, a pyrrole derivative, a thiophene ~~thiopene~~, a thiophene ~~thiopene~~ derivative, and polynaphthylene

~~polynaphthylene.~~

28. (Original) The molded electrode according to claim 1, wherein said plasticizer comprises an organic solvent with a boiling point of at least 200°C and a vapor pressure of no more than 5 mm Hg at 85° C.

29. (Currently Amended) The molded electrode according to claim 1, wherein said plasticizer comprises at least one of a dibutyl phthalate, butyl butylphthalylglycolate ~~butylphthalylglycolate~~, diethylhexyl adipate and trioctyl trimellitate.

30. (Previously Presented) The molded electrode according to claim 1, wherein said conductivity-enhancing agent comprises particles with a diameter of no more than 20µm.

31. (Previously Presented) The molded electrode according to claim 1, wherein a weight ratio is in the range 50:50 to 90:10 of said polymer active material to said conductivity-enhancing agent.

32. (Previously Presented) The secondary battery according to claim 17, further comprising:
an electrolytic solution situated around at least one of said positive electrode and said negative electrode.

33. (Previously Presented) The secondary battery according to claim 32, wherein said electrolytic solution comprises at least one of a non-aqueous electrolytic solution, a neutral

electrolytic solution, a proton-based electrolytic solution and an acidic aqueous solution.

34. (New) The molded electrode according to claim 1, wherein said molded electrode is formed by using a press-pressure in a range between 40 kgf/cm² to 200 kgf/cm².

35. (New) The molded electrode according to claim 1, wherein said electrode material comprises a thickness in a range of more than 500 μ m to 9 mm.

36. (New) The electrode according to claim 1, wherein said current collector comprises a roughened surface.

37. (New) The electrode according to claim 34, wherein said roughened surface comprises one of a sandblasted surface, a laser processed surface, a chemically etched surface and an electrochemically etched surface.

38. (New) The molded electrode according to claim 1, wherein said molded electrode comprises an energy density of at least 66.7 mWh/cm³ at 10mA/cm².